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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,457	03/12/2002	Ian James Whitworth	2308/250	4123

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EXAMINER

ROSSI, JESSICA

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/936,457

Applicant(s)

WHITWORTH, IAN JAMES

Examiner

Jessica L. Rossi

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/15/05, RCE.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

RCE

1. The request filed on 4/15/05 for a RCE under 37 CFR 1.53(d) based on parent Application No. 09/936,457 is acceptable and a RCE has been established. An action on the RCE follows.

Response to Amendment

2. This action is in response to the amendment dated 1/24/05. Claims 26-36 were cancelled. Claims 1-11 are pending.

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-2, 5 and 9 stand rejected under 35 U.S.C. 102(e) as being anticipated by Mossbeck et al. (US 6143122; of record), as set forth in paragraph 9 of the final rejection.

*It is noted that the examiner is relying on the effective filing date of the '122 reference (filing date of parent application 09/153,445, which is 9/15/98) to qualify the reference as 102(e)-type art; therefore, when making column and line citations with respect to the '122 reference, corresponding page and line citations with respect to the '445 application will also be made to show that the teachings relied upon in the '122 reference get the benefit of the 9/15/98 filing date. Also note that a copy of the '445 Application was attached to the response dated 1/24/05 and therefore the examiner will be referring to the page and line numbers within this copy.

With respect to claim 1, Mossbeck is directed to a method for the manufacture of an innerspring assembly 10 (column 2, lines 50-51; page 5, lines 4-7). The reference teaches positioning a first string 12a of pocketed coil springs in juxtaposition with a plurality of adhesive applicators 30 disposed in mutually fixed relation on an axis parallel to a longitudinal axis of the first string (Figure 3 in both '122 and '445 – note only two applicators depicted but can be more; column 5, lines 10-11 and column 6, lines 50-54; page 10, lines 3-4 and page 14, lines 4-7), applying adhesive from the applicators to the first string (column 5, lines 10-17; page 10, lines 3-10), **wherein the amount and/or distribution of adhesive applied to each individual pocket is varied (note region 26 having greater concentration of adhesive in Figure 1D found in both '122 and '445 – column 3, lines 33-42 and column 5, lines 23-25; page 6, line 21 – page 7, line 5 and page 10, lines 15-18)**, and bringing the first string into adhesive contact with a second string 12b (Figure 1D; column 6, lines 32-45; page 13, line 12 – page 14, line 7).

Regarding claim 2, the reference teaches simultaneously applying adhesive from the applicators (column 6, lines 50-54; page 14, lines 4-7).

Regarding claim 5, the reference teaches the second string being processed immediately before the first string in the same manner as the first string (Figure 1D; column 5, lines 10-15; page 10, lines 3-10).

Regarding claim 9, the reference teaches dispensing adhesive while moving the applicators relative to the first string (Figure 3; column 6, lines 32-54; page 13, line 12 – page 14, line 7).

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claim 6 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Mossbeck et al. as applied to claim 1 above and further in view of the collective teachings of Eto (US 5792309; of record) and St. Clair (WO 96/07345; of record), as set forth in paragraph 11 of the final rejection.

Regarding claim 6, Mossbeck teaches the process being fully automatic (column 2, lines 55-56; page 5, lines 8-11) but is silent as to movements of the first string being brought about by suitable mechanical means using electrical, hydraulic, or pneumatic power.

It is known in the art to adhesively bond strings of pocketed coil springs using a fully automated process wherein motor driven conveyors are used to move the strings through different stages of the process, as taught by Eto (column 3, lines 39-41 and 55-56; column 4, lines 12-18; column 5, lines 47-49). It is also known in the art to adhesively bond a first string to a second string using a pneumatically powered pushing device, as taught by St. Clair (Figure 5C; p. 15, lines 16-24).

Therefore, it would have been obvious to the skilled artisan at the time the invention was made to move the first string of Mossbeck using mechanical means such as motor-driven conveyors and a pneumatically powered pushing device because such is known in the art, as taught by the collective teachings of Eto and St. Clair, wherein such allows for a continuous process.

Art Unit: 1733

The skilled artisan would have appreciated that the conveyor motor would have to be driven by some type of power source while also appreciating that electrical, hydraulic, and pneumatic power sources for driving motors are well known and conventional. Therefore, it would have been obvious to the skilled artisan to use any one of these sources to power the motor because only the expected results would have been achieved.

7. Claim 7 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Mossbeck et al. as applied to claim 1 above and further in view of Suenens et al. (US 5016305; of record), as set forth in paragraph 12 of the final rejection.

8. Claims 1-5 and 7-11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Suenens et al. in view of Mossbeck et al.

With respect to claim 1, Suenens is directed to a method for the manufacture of an innerspring assembly (column 2, lines 17-18). The reference teaches positioning a first string 1 of pocketed coil springs 3 in juxtaposition with an adhesive applicator 11 (Figure 6; column 4, lines 60-62; column 5, lines 14-17), applying adhesive from the applicator to each spring 3 comprising the first string 1 (column 4, lines 45-47 and 57-66), and bringing the first string into adhesive contact with a second string (Figure 7; column 6, line 67 – column 7, line 4). The reference is silent as to the adhesive being applied from a plurality of applicators disposed in mutually fixed relation on an axis parallel to a longitudinal axis of the first string and the amount and/or distribution of adhesive applied to each individual pocket being varied.

It is known in the art to apply adhesive to a string of pocketed coil springs using a plurality of applicators disposed in mutually fixed relation on an axis parallel to a longitudinal axis of the string, as taught by Mossbeck (see paragraph 4 above for complete discussion).

Art Unit: 1733

Therefore, since Suenens teaches the applicator can be stationary or moveable (column 4, lines 60-64; column 5, lines 15-18), it would have been obvious to the skilled artisan at the time the invention was made to use a plurality of applicators disposed in mutually fixed relation on an axis parallel to a longitudinal axis of the first string of Suenens to apply adhesive thereto because such is known in the art, as taught by Mossbeck, wherein a plurality of applicators offers the advantage of avoiding a single applicator moving over a limited range with great speed or high frequency thereby minimizing the potential maintenance problems for the system (Mossbeck; column 3, lines 21-24; page 6, lines 12-15).

It is known in the art to produce an innerspring assembly by adhesively bonding adjacent strings of pocketed coil springs wherein the amount and/or distribution of adhesive applied to each individual pocket is varied by applying more adhesive to the central portion of each pocket relative to the remainder of the adhesive pattern because this produces a greater bonding strength between adjacent strings because the central portion of each spring is typically the primary contact region between the strings, as taught by Mossbeck (column 3, lines 33-42; page 6, line 21 – page 7, line 5).

Therefore, it would have been obvious to the skilled artisan to vary the amount and/or distribution of adhesive applied to each individual pocket of Suenens by applying more adhesive to the central portion of each pocket relative to the remainder of the adhesive pattern because such is known in the art, as taught by Mossbeck, where this produces a greater bonding strength between adjacent strings because the central portion of each spring is typically the primary contact region between the strings.

Art Unit: 1733

Regarding claim 2, Mossbeck teaches simultaneously applying adhesive from the applicators (see paragraph 4 above).

Regarding claim 3, Suenens teaches the first string being positioned into juxtaposition with the adhesive applicators by being fed longitudinally along (Figure 6), and then displaced transversely from (Figure 7), an axis parallel to the longitudinal axis of the first string; note “longitudinal axis” of the string is taken as the length of string.

Regarding claim 4, Suenens teaches tipping the first string into an upright position such that the surface of the first string to which adhesive has been applied is brought into contact with the surface of the second string (Figure 7; column 4, line 67 – column 5, line 4).

Regarding claim 5, Suenens teaches the second string having immediately beforehand been processed in the same manner as the first string (column 5, lines 2-4).

Regarding claim 7, Suenens teaches the adhesive being a hot melt (column 2, lines 66-68).

Regarding claim 8, Suenens teaches the applicator can be in a fixed, stationary position relative to the first string (column 4, lines 60-64).

Regarding claim 9, Suenens alternatively teaches moving the applicator relative to the first string (column 5, lines 15-18).

Regarding claim 10, Suenens alternatively teaches the first string being stationary and moving the applicator (column 5, lines 15-18).

Regarding claim 11, Suenens teaches the adhesive being dispensed from the applicators while movement of the first string relative to the applicators is taking place (column 4, lines 60-64).

Art Unit: 1733

9. Claim 6 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Suenens et al. and Mossbeck et al. as applied to claim 1 above, and further in view of the collective teachings of Eto, Suenens et al. (EP 421495; of record) and Mossbeck (US 6159319; of record).

Regarding claim 6, Suenens '305 teaches positioning the first string using a conveyor and tilting the first string to bring it into contact with the second string, but is silent as to these movements being brought about by mechanical means using electrical, hydraulic, or pneumatic power.

It is known in the art to adhesively bond strings of pocketed coil springs using a fully automated process wherein motor driven conveyors are used to move the strings through different stages of the process, as taught by Eto (column 3, lines 39-41 and 55-56; column 4, lines 12-18; column 5, lines 47-49). It is also known in the art to bring a first string into contact with a second string to adhesively bond the same using a tilting device that receives the first string from a conveyor, as taught by Suenens '495 (column 2, lines 4-15). It is also known in the art to bring a first string into contact with a second string to adhesively bond the same using a pneumatically powered tilting device, as taught by Mossbeck '319 (column 6, lines 56-61).

Therefore, it would have been obvious to the skilled artisan at the time the invention was made to move the first string of Suenens '305 using mechanical means such as motor-driven conveyors and a pneumatically powered tilting device because such is known in the art, as taught by the collective teachings of Eto, Suenens '495, and Mossbeck '319, wherein such allows for a continuous process.

The skilled artisan would have appreciated that the conveyor motor would have to be driven by some type of power source while also appreciating that electrical, hydraulic, and

Art Unit: 1733

pneumatic power sources for driving motors are well known and conventional. Therefore, it would have been obvious to the skilled artisan to use any one of these sources to power the motor because only the expected results would have been achieved.

Response to Arguments

10. Applicant's arguments filed 1/24/05 have been fully considered but they are not persuasive.

11. In the last sentence on p. 4 – the last sentence in the 1st paragraph on p. 5 and in the 3rd paragraph on p. 5 of the remarks, Applicant argues that the Mossbeck '122 reference does not get an effective filing date of 9/15/98 because the '445 Application does not disclose varying the amount and/or distribution of adhesive applied to each individual pocket.

The examiner directs Applicant to reread paragraph 4 above where portions of the '445 Application were cited to show that it does have support for this limitation (see page 6, line 21 – page 7, line 5 and page 10, lines 11-18 of the '445 Application).

12. In the 1st paragraph on page 5 of the remarks, Applicant argues that nozzles of the '445 Application are mounted to a single adhesive applicator such that the amount of adhesive dispensed from the plurality of nozzles cannot be independently varied.

The examiner points out that this argument is not commensurate with the scope of the claimed invention.

13. On page 6 of the remarks, Applicant argues that the secondary references to Eto and St. Clair fail to teach varying the amount and/or distribution of adhesive applied to each individual pocket.

Art Unit: 1733

The examiner points out that these references were only used to show it being known in the art to adhesively bond strings of pocketed coil springs using a fully automated process wherein motor driven conveyors are used to move the strings through different stages of the process, as taught by Eto, and it being known in the art to adhesively bond a first string to a second string using a pneumatically powered pushing device, as taught by St. Clair.

14. On page 7 of the remarks, Applicant argues that Suenens '305 fails to teach varying the amount and/or distribution of adhesive applied to each individual pocket.

The examiner agrees and points out that a 103 rejection in view of Mossbeck was set forth in paragraph 8 above to render this limitation obvious.

15. On page 7 of the remarks, Applicant argues that Suenens '495 fails to teach varying the amount and/or distribution of adhesive applied to each individual pocket.

The examiner points out that Suenens '495 was only used to show it being known in the art to bring a first string into contact with a second string to adhesively bond the same using a tilting device that receives the first string from a conveyor.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **571-272-1223**. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine R. Copenheaver can be reached on 571-272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1733

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jessica L. Rossi
Primary Examiner
Art Unit 1733